

Secretary

MICHAEL SCOTT

Acting Director

May 2, 2016

Fred B. Hicks 31796 Old Herlocker Road Albemarle, NC 28001

RE:

Water Supply Well Sampling Results

31888 Old Herlocker Road (PIN 652902888215)

Albemarle Dump NONCD0000571

Dear Mr. Hicks:

As you are aware, URS Corporation sampled your water supply on December 16, 2015 as part of an environmental assessment of the Albemarle Dump near the above referenced location. Samples were analyzed for the chemicals listed on the attached sheets. The following chemicals summarize what was detected in the samples collected from your water supply. Concentrations are expressed in parts per billion (ppb) or included on the attached sheets as micrograms per liter of water (µg/L).

Sample #	Chemical	Concentration	US EPA 1	15A NCAC 2L ²
T 4 204 00 42		mg/l	MCL mg/l	mg/l
FA30189-12	Cis-1,2-Dichloroethylene	0.00024 J	0.07	**
	Freon 113	0.0024	*	200
	Tetrachloroethylene	0.00073 J	0.005	**
	Trichloroethylene	0.00075 J	0.005	**

Notes -

J = Estimated Value

Standards listed on the table used to determine if water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L²), or where there is no MCL, or NC 2L a calculated health-based calculation.

The above information indicates that chemicals identified in the water sample obtained from your water source did not exceed applicable standards. Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (see attached Health Risk

¹ US EPA Maximum Contaminant Level for drinking water

 $^{^{2}\,}$ North Carolina Administrative Code, Section 2L, Groundwater Classification and Standards mg/l = milligrams per liter

^{* =} Not Available

^{** =} Not Applicable

Evaluation memo). Based on that evaluation, the water from this source is suitable for drinking and cooking and all other household purposes.

No further sampling is planned at this time; it is the responsibility of the owner to arrange for follow-up sampling through a commercial laboratory if the owner wants additional samples collected.

Please contact me with any questions at (919) 707-8227.

Sincerely,

Analee Thornburg, Hydrogeologist Division of Waste Management, NCDENR

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Attachments

MEMORANDUM

DATE:

February 23, 2016

TO:

Analee Thornburg, Hydrogeologist Inactive Hazardous Sites Branch

NC Superfund Section

FROM:

Hanna Assefa

Industrial Hygiene Consultant

NC Division of Waste Management

RE:

Health Risk Evaluation Albemarle Dump Fred B. Hicks Well 14 31888 Old Herlocker Road

Albemarle Stanley County

NONCD0000571

A sample was collected from the drinking water well at the subject address on December 16, 2015. Contaminant concentrations detected in the well water do not exceed applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L). If a health-based groundwater standard was not available, one was calculated.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other purposes listed above. The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant ug/l mg/l	Concentration mg/l	USEPA MCL mg/l	Health Based 15A NCAC 2L mg/l	Calculated Health Based Concentration mg/l
FA30189-12	Freon 113	0.0024 J	*	200	**
	Cis-1,2- Dichloroethylene	0.00024	0.07	**	**
	Tetrachloroethylene	0.00073 J	0.005	**	**
	Trichloroethylene	0.00075 J	0.005	**	**

^{**} Not Applicable

mg/l = Milligrams contaminant per liter of water.

^{*} Not Available

J-Estimated Concentration

By

RB

Client Sample ID: WELL 14 Lab Sample ID: FA30189-12

Matrix:

AQ - Ground Water

Date Sampled: 12/16/15 Date Received: 12/19/15

Method:

SW846 8260B

Project:

Albemarle Dump; Nanny Dr, NC

Percent Solids: n/a

File ID Run #1 N0091301.D DF 1

Analyzed 12/28/15

Prep Date n/a

Prep Batch n/a

Analytical Batch VN4110

Run #2

Purge Volume

Run #1 Run #2 5.0 ml

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020		
74-97-5	Bromochloromethane	ND	0.0010	0.00034		
75-27-4	Bromodichloromethane	ND	0.0010	0.00022		
75-25-2	Bromoform	ND	0.0010	0.00032		
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0012	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00029		
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00028	0	
108-90-7	Chlorobenzene	ND	0.0010	0.00020		
75-00-3	Chloroethane	ND	0.0020	0.00050	U	
67-66-3	Chloroform	ND	0.0010	0.00030		
110-82-7	Cyclohexane	ND	0.0010	0.00020		
124-48-1	Dibromochloromethane	ND	0.0010	0.00020		
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00061	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00042	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00022		
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00025		
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00020	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00027	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00024	0.0010	0.00022	mg/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00021		
78-87-5	1,2-Dichloropropane	ND	0.0010		mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00026		
123-91-1	1,4-Dioxane	ND	0.20	0.026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00020		
76-13-1	Freon 113	0.0024	0.0010	0.00029		
591-78-6	2-Hexanone	ND	0.010		mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00020		

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

 $B = Indicates \ analyte \ found \ in \ associated \ method \ blank$

E = Indicates value exceeds calibration range



Client Sample ID: WELL 14

Lab Sample ID:

FA30189-12

Matrix: Method:

Project:

AQ - Ground Water

SW846 8260B

Albemarle Dump; Nanny Dr, NC

Date Sampled: 12/16/15

Date Received: 12/19/15

Percent Solids: n/a

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL Un	its Q
79-20-9	Methyl Acetate	ND	0.020	0.0050 mg	·/1
74-83-9	Methyl Bromide	ND	0.0020	0.00050 mg	
74-87-3	Methyl Chloride	ND	0.0020	0.00050 mg	
108-87-2	Methylcyclohexane	ND	0.0010	0.00022 mg	
75-09-2	Methylene Chloride	ND	0.0050	0.0020 mg	
108-10-1	4-Methyl-2-pentanone (MIBK)		0.0050	0.0010 mg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00030 mg	
100-42-5	Styrene	ND	0.0010	0.00028 mg/	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00022 mg/	
127-18-4	Tetrachloroethylene	0.00073	0.0010	0.00033 mg/	
108-88-3	Toluene	ND	0.0010	0.00040 mg/	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00050 mg/	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00050 mg/	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00026 mg/	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00031 mg/	
79-01-6	Trichloroethylene	0.00075	0.0010	0.00022 mg/	
75-69-4	Trichlorofluoromethane	ND	0.0020	0.00050 mg/	
75-01-4	Vinyl Chloride	ND	0.0010	0.00025 mg/	
	m,p-Xylene	ND	0.0020	0.00031 mg/	
95-47-6	o-Xylene	ND	0.0010	0.00020 mg/	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7	Dibromofluoromethane	101%		83-118%	
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%	
2037-26-5		100%		85-112%	
460-00-4		102%		83-118%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = Indicates \ analyte \ found \ in \ associated \ method \ blank$





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MICHAEL SCOTT

Acting Director

May 2, 2016

Scott E. Mauldin 34508 Lisa Drive Albemarle, NC 28001

RE:

Water Supply Well Sampling Results 34508 Lisa Drive (PIN 652902777395)

Albemarle Dump NONCD0000571

Dear Mr. Mauldin:

As you are aware, URS Corporation sampled your water supply on December 15, 2015 as part of an environmental assessment of the Albemarle Dump near the above referenced location. Samples were analyzed for the chemicals listed on the attached sheets. The following chemicals summarize what was detected in the samples collected from your water supply. Concentrations are expressed in parts per billion (ppb) or included on the attached sheets as micrograms per liter of water (μ g/L).

Sample #	Chemical	Concentration mg/l	US EPA ¹ MCL mg/l	15A NCAC 2L ² mg/l
FA30189-13	Tetrachloroethylene	0.0040	0.005	**

Notes –

Standards listed on the table used to determine if water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L²), or where there is no MCL, or NC 2L a calculated health-based calculation.

The above information indicates that chemicals identified in the water sample obtained from your water source did not exceed applicable standards. Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (see attached Health Risk Evaluation memo). Based on that evaluation, the water from this source is suitable for drinking and cooking and all other household purposes.

¹ US EPA Maximum Contaminant Level for drinking water

 $^{^2\,}$ North Carolina Administrative Code, Section 2L, Groundwater Classification and Standards mg/l = milligrams per liter

J = Estimated Value

^{* =} Not Available

^{** =} Not Applicable

No further sampling is planned at this time; it is the responsibility of the owner to arrange for follow-up sampling through a commercial laboratory if the owner wants additional samples collected. Please contact me with any questions at (919) 707-8227.

Sincerely,

Analee Thornburg, Hydrogeologist Division of Waste Management, NCDENR

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Attachments

MEMORANDUM

DATE: February 23, 2016

TO: Analee Thornburg, Hydrogeologist

Inactive Hazardous Sites Branch

NC Superfund Section

FROM: Hanna Assefa

Industrial Hygiene Consultant

NC Division of Waste Management

RE: Health Risk Evaluation

Albemarle Dump

Scott E. Mauldin Drinking Water Well

Well 15

34508 Lisa Drive

Albemarle Stanley County

NONCD0000571

A sample was collected from the drinking water well at the subject address on December 15, 2016. The concentration of tetrachloroethylene detected in the well water does not exceed applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L). If a health-based groundwater standard was not available, one was calculated.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other purposes listed above. The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant ug/l mg/l	Concentration mg/l	USEPA MCL mg/l	Health Based 15A NCAC 2L mg/l	Calculated Health Based Concentration mg/l
FA30189-13	Tetrachloroethylene	0.004	0.005	**	**

^{**} Not Applicable

mg/l = Milligrams contaminant per liter of water.

Analytical Batch

VN4112

Report of Analysis

Client Sample ID: WELL 15 Lab Sample ID: FA30189-13

Matrix: Method: AQ - Ground Water

SW846 8260B

Date Sampled: 12/17/15 Date Received: 12/19/15

Percent Solids: n/a

Project:

Albemarle Dump; Nanny Dr, NC

File ID

DF Analyzed By Prep Date Prep Batch N0091316.D 1 12/28/15 RB n/a n/a

Run #1 Run #2

Purge Volume

Run #1

Run #2

VOA TCL (SOM01.1) List

5.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010			
74-97-5	Bromochloromethane	ND	0.0010	0.00034		
75-27-4	Bromodichloromethane	ND	0.0010	0.00022	? mg/l	
75-25-2	Bromoform	ND	0.0010	0.00032		
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0012	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00029		
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00028	Q	
108-90-7	Chlorobenzene	ND	0.0010	0.00020		
75-00-3	Chloroethane	ND	0.0020	0.00050	mø/l	
67-66-3	Chloroform	ND	0.0010	0.00030		
110-82-7	Cyclohexane	NĐ	0.0010	0.00020		
124-48-1	Dibromochloromethane	ND	0.0010	0.00020		
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00061	U	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00042		
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00025		
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00020		
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020		
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00027		
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00022		
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00021		
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00026		
123-91-1	1,4-Dioxane	ND	0.20	0.026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00020		
76-13-1	Freon 113	ND	0.0010		mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0020	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00020	mg/l	
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ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: WELL 15 Lab Sample ID:

FA30189-13

Matrix:

AQ - Ground Water

Method: Project:

SW846 8260B

Albemarle Dump; Nanny Dr, NC

Date Sampled: 12/17/15 Date Received: 12/19/15

Percent Solids: n/a

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND	0.0020	0.00050	mg/l	
108-87-2	Methylcyclohexane	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0010	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00030	mg/l	
100-42-5	Styrene	ND	0.0010	0.00028	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND -	0.0010	0.00022	mg/l	
127-18-4	Tetrachloroethylene	0.0040	0.0010	0.00033		
108-88-3	Toluene	ND	0.0010	0.00040		
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00050		
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00026	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00031		
79-01-6	Trichloroethylene	ND	0.0010	0.00022		
75-69-4	Trichlorofluoromethane	ND	0.0020		mg/l	
75-01-4	Vinyl Chloride	ND	0.0010		mg/l	
	m,p-Xylene	ND	0.0020		mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00020		
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	3	
1868-53-7		99%		83-118	3%	
17060-07-0	1,2-Dichloroethane-D4	105%		79-125	5%	
2037-26-5		100%		85-112	2%	
460-00-4	4-Bromofluorobenzene	103%		83-118	8%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank





MICHAEL SCOTT

Acting Director

May 2, 2016

Robert W. Chance 34529 Tiffany Lane Albemarle, NC 28001

RE:

Water Supply Well Sampling Results

34529 Tiffany Lane (PIN 652902776608)

Albemarle Dump NONCD0000571

Dear Mr. Chance:

As you are aware, URS Corporation sampled your water supply on December 16, 2015 as part of an environmental assessment of the Albemarle Dump near the above referenced location. Samples were analyzed for the chemicals listed on the attached sheets. The following chemicals summarize what was detected in the samples collected from your water supply. Concentrations are expressed in parts per billion (ppb) or included on the attached sheets as micrograms per liter of water (µg/L).

Sample #	«Chemical	Concentration	US EPA ¹	15A NCAC 2L ²
THE COLOR OF THE		mg/l	MCL mg/l	mg/l
FA30189-14	Tetrachloroethylene	0.0016	0.005	**
	*			l

Notes -

Standards listed on the table used to determine if water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L²), or where there is no MCL, or NC 2L a calculated health-based calculation.

The above information indicates that chemicals identified in the water sample obtained from your water source did not exceed applicable standards. Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (see attached Health Risk Evaluation memo). Based on that evaluation, the water from this source is suitable for drinking and cooking and all other household purposes.

¹ US EPA Maximum Contaminant Level for drinking water

 $^{^{2}\,}$ North Carolina Administrative Code, Section 2L, Groundwater Classification and Standards mg/l = milligrams per liter

J = Estimated Value

^{* =} Not Available

^{** =} Not Applicable

No further sampling is planned at this time; it is the responsibility of the owner to arrange for follow-up sampling through a commercial laboratory if the owner wants additional samples collected. Please contact me with any questions at (919) 707-8227.

Sincerely,

Analee Thornburg, Hydrogeologist
Division of Waste Management, NCDENR

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Attachments

MEMORANDUM

DATE:

February 23, 2016

TO:

Analee Thornburg, Hydrogeologist

Inactive Hazardous Sites Branch NC Superfund Section

FROM:

Hanna Assefa

Industrial Hygiene Consultant

NC Division of Waste Management

RE:

Health Risk Evaluation

Albemarle Dump

Robert W. Chance Drinking Water Well

Well 16

34529 Tiffany Lane Albemarle Stanley County

NONCD0000571

A sample was collected from the drinking water well at the subject address on December, 16, 2016. The concentration of tetrachloroethylene detected in the well water does not exceed applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L). If a health-based groundwater standard was not available, one was calculated.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other purposes listed above. The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant ug/l mg/l	Concentration mg/l	USEPA MCL mg/l	Health Based 15A NCAC 2L mg/l	Calculated Health Based Concentration mg/l
FA30189-14	Tetrachloroethylene	0.0016	0.005	**	**

^{**} Not Applicable

Shaded area indicates standard has been exceeded. mg/l = Milligrams contaminant per liter of water.

Page 1 of 2

Client Sample ID: WELL 16

Lab Sample ID:

FA30189-14

Matrix: Method: AQ - Ground Water

SW846 8260B

Date Sampled: 12/17/15

Date Received: 12/19/15

Percent Solids: n/a

Project: Albemarle Dump; Nanny Dr, NC

File ID N0091317.D Run #1

DF 1

Analyzed 12/28/15

By RB Prep Date

Prep Batch

Analytical Batch

n/a n/a VN4112

Run #2

Purge Volume

Run #1

Run #2

VOA TCL (SOM01.1) List

5.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00034		
75-27-4	Bromodichloromethane	ND	0.0010	0.00022	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00032	mg/l	
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0012	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00029	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00028		
108-90-7	Chlorobenzene	ND	0.0010	0.00020	mg/l	
75-00-3	Chloroethane	ND	0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00030	mg/l	
110-82-7	Cyclohexane	ND	0.0010	0.00020	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00020	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00061	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00042	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00020	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00027	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00022	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00021	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00025	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00026	mg/l	
123-91-1	1,4-Dioxane	ND_	0.20	0.026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00020	mg/l	
76-13-1	Freon 113	ND	0.0010	0.00029	mg/l	
591-78-6	2-Hexanone	ND	0.010		mg/l	
98-82-8	Isopropylbenzene	ND	0.0010		mg/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank:

E = Indicates value exceeds calibration range



Client Sample ID: WELL 16

Lab Sample ID:

FA30189-14

Matrix: Method: Project:

AQ - Ground Water

SW846 8260B

Albemarle Dump; Nanny Dr, NC

Date Sampled: 12/17/15

Date Received: 12/19/15

Percent Solids: n/a

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND	0.0020	0.00050		
108-87-2	Methylcyclohexane	ND	0.0010	0.00022	O	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0010	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00030		
100-42-5	Styrene	ND	0.0010	0.00028	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00022		
127-18-4	Tetrachloroethylene	0.0016	0.0010			
108-88-3	Toluene	ND	0.0010	0.00040		
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00050	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010		mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010		mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010		mg/l	
79-01-6	Trichloroethylene	ND	0.0010		mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020		mg/l	
75-01-4	Vinyl Chloride	ND	0.0010		mg/l	
	m,p-Xylene	ND	0.0020		mg/l	
95-47-6	o-Xylene	ND	0.0010		mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	3	
1868-53-7	Dibromofluoromethane	100%		83-118	3%	
17060-07-0	1,2-Dichloroethane-D4	108%		79-125	5%	
2037-26-5		102%		85-112		
460-00-4	4-Bromofluorobenzene	107%		83-118	3%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank





Manage

MICHAEL SCOTT

Acting Director

May 2, 2016

Gerald B. Albertson 34453 Lisa Drive Albemarle, NC 28001

RE:

Water Supply Well Sampling Results

34453 Lisa Drive (PIN 652902764820)

Albemarle Dump NONCD0000571

Dear Mr. Albertson:

As you are aware, URS Corporation sampled your water supply on December 17, 2015 as part of an environmental assessment of the Albematle Dump near the above referenced location. Samples were analyzed for the chemicals listed on the attached sheets. The following chemicals summarize what was detected in the samples collected from your water supply. Concentrations are expressed in parts per billion (ppb) or included on the attached sheets as micrograms per liter of water (μ g/L).

Sample #	Chemical	Concentration	US EPA ¹	15A NCAC 2L ²	
FA30189-19	Chloroform	0.0011	MCL mg/l 0.080	mg/l	

Notes -

¹ US EPA Maximum Contaminant Level for drinking water

 $^{2}\,$ North Carolina Administrative Code, Section 2L, Groundwater Classification and Standards mg/l = milligrams per liter

J = Estimated Value

* = Not Available

** = Not Applicable

Standards listed on the table used to determine if water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L²), or where there is no MCL, or NC 2L a calculated health-based calculation.

The above information indicates that chemicals identified in the water sample obtained from your water source did not exceed applicable standards. Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (see attached Health Risk Evaluation memo). Based on that evaluation, the water from this source is suitable for drinking and cooking and all other household purposes.

No further sampling is planned at this time; it is the responsibility of the owner to arrange for follow-up sampling through a commercial laboratory if the owner wants additional samples collected.

Please contact me with any questions at (919) 707-8227.

Sincerely,

Analee Thornburg, Hydrogeologist Division of Waste Management, NCDENR

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Attachments

MEMORANDUM

DATE:

February 23, 2016

TO:

Analee Thornburg, Hydrogeologist Inactive Hazardous Sites Branch

NC Superfund Section

FROM:

Hanna Assefa

Industrial Hygiene Consultant

NC Division of Waste Management

RE:

Health Risk Evaluation

Albemarle Dump

Gerald B. Albertson Drinking Water Well

Well 25

34453 Lisa Drive

Albemarle Stanley County

NONCD0000571

A sample was collected from the drinking water well at the subject address on December 17, 2016. The concentration of chloroform detected in the well water does not exceed applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L). If a health-based groundwater standard was not available, one was calculated.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. **Therefore, based on this evaluation the water from this well can be used for drinking, cooking and all other purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant ug/l mg/l	Concentration mg/l	USEPA MCL mg/l	Health Based 15A NCAC 2L mg/l	Calculated Health Based Concentration mg/l
FA30189-19	Chloroform	0.0011	0.080	**	**

^{**} Not Applicable

mg/l = Milligrams contaminant per liter of water.

Client Sample ID: WELL 25

Lab Sample ID: Matrix:

FA30189-19 AQ - Ground Water

Method:

SW846 8260B

Date Sampled: 12/17/15

Date Received: 12/19/15

Percent Solids: n/a

Project: Albemarle Dump; Nanny Dr, NC

File ID Run #1 N0091322.D

DF 1

Analyzed 12/28/15

By RB Prep Date n/a

Prep Batch n/a

Analytical Batch

VN4112

Run #2

Purge Volume $5.0 \, ml$

Run #1 Run #2

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020		
74-97-5	Bromochloromethane	ND =	0.0010	0.00034	0	
75-27-4	Bromodichloromethane	ND	0.0010	0.00022		
75-25-2	Bromoform	ND	0.0010	0.00032		
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0012	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00029		
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00028		
108-90-7	Chlorobenzene	ND	0.0010	0.00020		
75-00-3	Chloroethane	ND	0.0020	0.00050		
67-66-3	Chloroform	0.0011	0.0010	0.00030	O	
110-82-7	Cyclohexane	ND	0.0010	0.00020	0	
124-48-1	Dibromochloromethane	ND	0.0010	0.00020		
96-12-8	1,2-Dibromo-3-chloropropane	ND -	0.0020	0.00061		
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00042		
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00022		
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00022		
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00020		
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00027	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00022		
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00021		
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025		
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00025		
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010		mg/l	
123-91-1	1,4-Dioxane	ND	0.20	0.026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010		mg/l	
76-13-1	Freon 113	ND	0.0010		mg/l	
591-78-6		ND	0.010	0.0020	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00020		

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: WELL 25

Lab Sample ID:

FA30189-19

Matrix:

AQ - Ground Water

Method: Project:

SW846 8260B Albemarle Dump; Nanny Dr, NC Date Sampled: 12/17/15

Date Received: 12/19/15 Percent Solids: n/a

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	
74-83-9	Methyl Bromide	ND	0.0020	0.00050	mg/l	
74-87-3	Methyl Chloride	ND -	0.0020	0.00050	mg/l	
108-87-2	Methylcyclohexane	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)		0.0050	0.0010	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00030	mg/l	
100-42-5	Styrene	ND	0.0010	0.00028	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00022	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010		mg/l	
108-88-3	Toluene	ND	0.0010		mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00050		
120-82-1	1,2,4-Trichlorobenzene	ND =	0.0010		mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010		mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010		mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00022		
75-69-4	Trichlorofluoromethane	ND =	0.0020		mg/l	
75-01-4	Vinyl Chloride	ND	0.0010		mg/l	
	m,p-Xylene	ND =	0.0020		mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00020		
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	•	
1868-53-7	Dibromofluoromethane	104%		83-118	8%	
17060-07-0	1,2-Dichloroethane-D4	110%		79-125	5%	
2037-26-5	Toluene-D8	101%		85-112	2%	
460-00-4	4-Bromofluorobenzene	102%		83-118	%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank





Secretary

MICHAEL SCOTT

Acting Director

May 2, 2016

Gail Stokem and Debbie Burkett 29163 Pennington Road Albemarle, NC 28001

RE:

Water Supply Well Sampling Results

29163 Pennington Road (PIN 652902760637)

Albemarle Dump NONCD0000571

Dear Ms. Stokem and Ms. Burkett:

As you are aware, URS Corporation sampled your water supply on December 17, 2015 as part of an environmental assessment of the Albemarle Dump near the above referenced location. Samples were analyzed for the chemicals listed on the attached sheets. The following chemicals summarize what was detected in the samples collected from your water supply. Concentrations are expressed in parts per billion (ppb) or included on the attached sheets as micrograms per liter of water (µg/L).

Sample #	Chemical	Concentration mg/l	US EPA ¹ MCL mg/l	15A NCAC 2L ² mg/l
FA30189-24	Chloroform	0.00082 J	0.080	**

Notes -

Standards listed on the table used to determine if water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L²), or where there is no MCL, or NC 2L a calculated health-based calculation.

The above information indicates that chemicals identified in the water sample obtained from your water source did not exceed applicable standards. Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (see attached Health Risk Evaluation memo). Based on that evaluation, the water from this source is suitable for drinking and cooking and all other household purposes.

¹ US EPA Maximum Contaminant Level for drinking water

 $^{^2\,}$ North Carolina Administrative Code, Section 2L, Groundwater Classification and Standards mg/l = milligrams per liter

J = Estimated Value

^{* =} Not Available

^{** =} Not Applicable

No further sampling is planned at this time; it is the responsibility of the owner to arrange for follow-up sampling through a commercial laboratory if the owner wants additional samples collected.

Please contact me with any questions at (919) 707-8227.

Sincerely,

Analee Thornburg, Hydrogeologist Division of Waste Management, NCDENR

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Attachments



MICHAEL SCOTT

Acting Director

May 2, 2016

TO:

Analee Thornburg

Inactive Hazardous Sites Branch

NC Superfund Section

RE:

Health Risk Evaluation

NONCD0000571 Albemarle Dump

Gail Stokem and Debbie Burkett Well Sampling Results

29163 Pennington Road

Albemarle, NC

During this sampling event, one contaminant was detected in the well water. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L).

If the contaminant concentration exceeds the applicable standard for using the water for drinking and cooking, the contaminant concentration is further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. The chart below compares the detected contaminant concentration with the applicable standard:

Sample ID	Contaminant	Concentration (µg/l)*	MCL (µg/l)	2L (μg/l)
FA30189-24	Chloroform	0.82	80**	

^{*} The abbreviation µg/l stands for micrograms of contaminant per liter of water and is roughly equivalent to parts per billion.

<u>RECOMMENDATION</u>: The detected contaminant did not exceed the applicable water standard. Therefore, no restrictions on the use of this water are recommended at this time.

David Lilley, Environmental Toxicologist Division of Waste Management, NCDEQ

^{**} As total trihalomethanes.

Ву

EP

Prep Date

n/a

Client Sample ID: WELL 30 Lab Sample ID:

File ID

Matrix:

FA30189-24 AQ - Ground Water

DF

Date Sampled: 12/17/15 Date Received: 12/19/15

n/a

Method:

SW846 8260B

Percent Solids: n/a

Project:

Albemarle Dump; Nanny Dr, NC

Analyzed

12/30/15

Prep Batch

Analytical Batch VC4497

Run #1 Run #2

Purge Volume

C0112835.D

Run #1 5.0 ml

Run #2

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.025	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00020		
74-97-5	Bromochloromethane	ND	0.0010	0.00034	U	
75-27-4	Bromodichloromethane	ND	0.0010	0.00022		
75-25-2	Bromoform	ND	0.0010	0.00032	0	
78-93-3	2-Butanone (MEK)	ND	0.0050	0.0012	mg/l	
75-15-0	Carbon Disulfide	ND	0.0020	0.00029		
56-23-5	Carbon Tetrachloride	ND	0.0010	0.00028	O	
108-90-7	Chlorobenzene	ND	0.0010	0.00020		
75-00-3	Chloroethane	ND	0.0020	0.00050	mg/l	
67-66-3	Chloroform	0.00082	0.0010	0.00030	mg/l	J
110-82-7	Cyclohexane	ND	0.0010	0.00020	mg/l	J
124-48-1	Dibromochloromethane	ND	0.0010	0.00020	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00061		
106-93-4	1,2-Dibromoethane	ND	0.0020	0.00042		
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00050		
95-50-1	1,2-Dichlorobenzene	ND	0.0010	0.00022		
541-73-1	1,3-Dichlorobenzene	ND	0.0010	0.00022	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010		mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010		mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010		mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010		mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010		mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010		mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010		mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010		mg/l	
123-91-1	1,4-Dioxane	ND	0.20		mg/l	
100-41-4	Ethylbenzene	ND	0.0010		mg/l	
76-13-1	Freon 113	ND	0.0010		mg/l	
591-78-6	2-Hexanone	ND	0.010		mg/l	
98-82-8	Isopropylbenzene	ND	0.0010		mg/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

E = Indicates value exceeds calibration range

B = Indicates analyte found in associated method blank



Client Sample ID: WELL 30 Lab Sample ID:

Matrix:

FA30189-24 AQ - Ground Water SW846 8260B

Date Sampled: 12/17/15 Date Received: 12/19/15

Percent Solids: n/a

Method: Project:

Albemarle Dump; Nanny Dr, NC

VOA TCL (SOM01.1) List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	0.020	0.0050	mg/l	
74-83-9	Methyl Bromide	ND	0.0020	0.00050		
74-87-3	Methyl Chloride	ND -	0.0020	0.00050	0	
108-87-2	Methylcyclohexane	ND	0.0010	0.00022	0	
75-09-2	Methylene Chloride	ND	0.0050	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.0050	0.0010	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00030		
100-42-5	Styrene	ND	0.0010	0.00028		
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00022	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033		
108-88-3	Toluene	ND	0.0010	0.00040	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010		mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010		mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00026	mø/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00022	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0020		mg/l	
75-01-4	Vinyl Chloride	ND	0.0010		mg/l	
	m,p-Xylene	ND	0.0020		mg/l	
95-47-6	o-Xylene	ND	0.0010		mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	3	
1868-53-7	Dibromofluoromethane	112%		83-118	3%	
17060-07-0	1,2-Dichloroethane-D4	109%		79-125		
2037-26-5		96%		85-112		
460-00-4	4-Bromofluorobenzene	99%		83-118	8%	

ND = Not detected

 $MDL = Method \ Detection \ Limit$

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B=\mbox{Indicates}$ analyte found in associated method blank

 $N = \mbox{Indicates presumptive evidence of a compound} \label{eq:N}$

